

Date: Tuesday, 3/20/2007 1:46:45 PM  
User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : 212/205 HIGH FED X-TUBE ASSEMBLY  
Job Number : 31352  
Estimate Number : 10254  
P.O. Number : N/A Part Number : D212664101  
This Issue : 3/20/2007 S.O. No. : N/A Drawing Number : D212-664-141 REV. 8  
Prsht Rev. : NC Project Number : N/A  
First Issue : N/A Type : LANDING GEAR Drawing Revision : 8  
Previous Run : 30419 Material : N/A  
Due Date : 4/15/2007 Qty: 1 Um: Each  
Written By :  
Checked & Approved By : JF 07.03.20  
Comment : Est Rev:E 04.02.16 Reformat KJ/DS  
Est Rev:F 06-03-29 Remove Coments on Pick List JLM

## Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

1.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels as per PPP D212-664-101CHG000 3 2

2.0

D6005128

Crosstube material



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part number

Description

Batch

1 D6005-128

Crosstube

B26549

Check OD = 2.750"; ID = 2.000"

3.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Fill tube with sand &amp; install plugs DT8534 on both ends as per Folio FA113

2-Turn first side as per Folio FA113

3-Deburr &amp; Inspect for surface damage. Repair damage within limits as per Dwg D212-664-141.

4.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Turn second side as per Folio FA113

2-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D212-664-141.

JP 07/04/09

6.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

JP 07/04/09

7.0

QC8

SECOND CHECK



Comment: SECOND CHECK

JP 07/04/09

8.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Remove sand and plugs

2-Scribe part # and batch # using vibrating stylus as per Dwg D212-664-141

JP 07/04/09

9.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Polish entire outside surface of crosstube

JP 7-4-9

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

JP 07-04-09

11.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

JP 7-4-9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Drawing Name: 212/205 HIGH FED X-TUBE ASSEMBLY

Job Number: 31352

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description:

12.0

QC15

DIMENSIONAL CHECK OF X-TUBES



20705-03 (1)



Comment: DIMENSIONAL CHECK OF X-TUBES

13.0

BENDING

BENDING MACHINE



Comment: BENDING MACHINE

Bend tube as per Dwg D212-664-141 using CNC bender program 212-fw and Folio FT015

EL 7-5-2

14.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Drill pilot holes in tube as per Dwg D212-664-141 using drill Jig DT8548 & DT8549

2-Ream hole to finish size in tube as per Dwg D212-664-141 using drill Jig DT8548 & DT8549. Check dimensions between holes, both sides on both cuffs, to ensure alignment with saddle holes.

3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D212-664-141

300  
7-5-29  
JD 7-5-29

15.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1 within 24 hours of bending and drilling

JD 7-5-30

16.0

QC5

INSPECT WORK TO CURRENT STEP



20705-31 (1)



Comment: INSPECT WORK TO CURRENT STEP

17.0

OUTSIDE SERVICE

OUTSIDE SERVICES



Comment: Sub-Contracting OUTSIDE SERVICES

Liquid Penetrant Inspection as per QSI 038

Issue P/O: 3878

LPI as per ASTM 1417 Level 2

Attach copy of NDT results to work order

C207051310

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Inspect for transit damage Ensure copy of NDT results attached to work order.

20706/650

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Drawing Name: 212/205 HIGH FED X-TUBE ASSEMBLY

Job Number: 31352

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

QC6

DIMENSIONAL CHECK



Comment: Inspect for damage & ensure results are as per Dwg D212-664-141

*07-06-12 (U)*

20.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

*} RT 07-06-12*

21.0

QC14

Inspect Spray Paint



Comment: Inspect Spray Paint

Then, Wrap in plastic bag to protect from scratches

*07-06-13 (U)*

22.0

D2856600

Abrasion Strip



Comment: Qty.: 0.7090 f(s)/Unit Total : 0.7090 f(s)

Pick:

Qty Part number Description Batch

2 D2856-600-851 Abrasion Strip

*magnabond M103628  
2:30 RT 07-06-18*

23.0

D28931

Support



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2893-1 Support

*29524 RT 07-06-18*

24.0

MS2192024

Clamp(per MIL-DTL-8783C)



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part number Description Batch

4 MS21920-24

Clamp

*M103002 RT 07-06-18*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Drawing Name: 212/205 HIGH FED X-TUBE ASSEMBLY

Job Number: 31352

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description:

25.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

*magnabond*

1-Install abrasion strips as per QSI 035 using DT8581

2-Install supports and clamps as per Dwg D212-664-141. Torque clamps to 80-100 in lb.

*PTO*

*285 07-06-18*

26.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*Er 02/03/19 (X)*

27.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

28.0

D34281

Placard



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

PLACARD

Batch: *1626249*

*X*

29.0

AN635A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Bolt

Batch: *M103 446*

*X*

30.0

AN636A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Bolt

Batch: *M104 974*

*X*

31.0

AN960JD616

Washer



Comment: Qty.: 18.0000 Each(s)/Unit Total: 18.0000 Each(s)


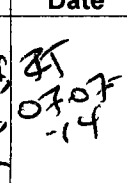
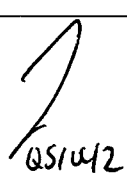
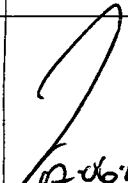
Washer

Batch: *M103641*

*X 7/7/20 SC*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: D Date: 07/07/23  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07-06-19	25.0	when in m m k was polished. → dust spot out, the primer became visible. Leak cause: Too much buffing,	 QS1042	MASK off 1/2 the tube, from the support to the cuff, Sawff with a scotch brite, clean & Prep. Paint per QS1005	 07/07/19 -14	Er 07/07/19	 QS1042	 07-06-19

NOTE: Date & initial all entries

Date: Tuesday, 3/20/2007 1:46:46 PM

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 212/205 HIGH FED X-TUBE ASSEMBLY

Job Number: 31352

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description :

32.0

MS21042L6

Nut



Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)

Nut

Batch: M101660 ✓

7/7/20 SP ✓

33.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

C 207/07/20 ①

P 27/7/20

34.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Identify and pack for shipping as per PPP D212-664-101

C

P 27/7/20 ①

35.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

P 207/07/23 ①

Job Completion



U 07-07-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	<b>31352</b>
<b>Description:</b> Crosstube Assembly (205/212/412 High Fwd)	<b>Part Number:</b>	<b>D212-664-141</b>
<b>Inspection Dwg:</b> D212-664-141 <b>Rev:</b> B		<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

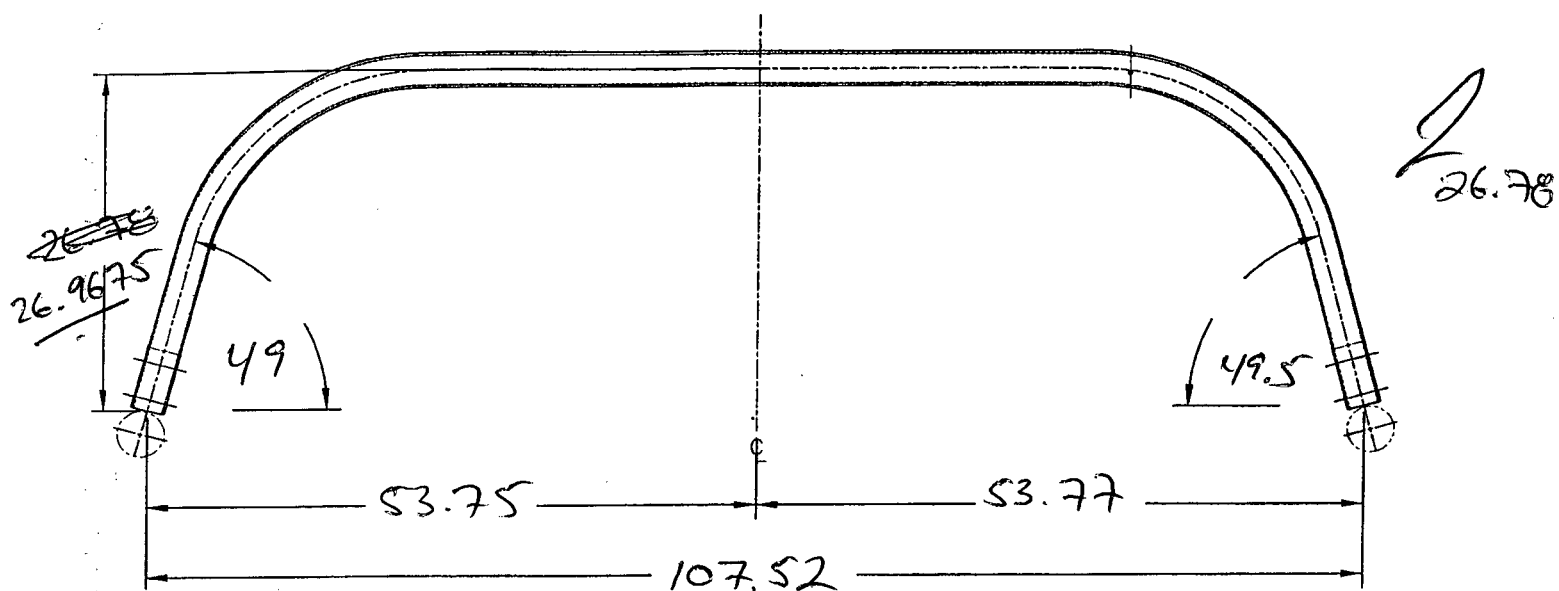
Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	0.200	+/-0.010	.200 ✓			
	R0.063	+/-0.010	.063 ✓			
	2.740	+0.005/-0.000	2.743 ✓			
	5.097	+/-0.030	5.097 ✓			
	2.304	+0.005/-0.000	2.304 ✓			
	2.340	+0.005/-0.000	2.340 ✓			
	2.398	+0.005/-0.000	2.398 ✓			
	2.448	+0.005/-0.000	2.448 ✓			
	2.498	+0.005/-0.000	2.498 ✓			
	2.549	+0.005/-0.000	2.549 ✓			
	2.599	+0.005/-0.000	2.599 ✓			
	2.671	+0.005/-0.000	2.671 ✓			
	2.701	+0.005/-0.000	2.701 ✓			
SIDE B	0.200	+/-0.010	.200 ✓			
	R0.063	+/-0.010	.063 ✓			
	2.740	+0.005/-0.000	2.743 ✓			
	5.097	+/-0.030	5.097 ✓			
	2.304	+0.005/-0.000	2.304 ✓			
	2.340	+0.005/-0.000	2.340 ✓			
	2.398	+0.005/-0.000	2.398 ✓			
	2.448	+0.005/-0.000	2.448 ✓			
	2.498	+0.005/-0.000	2.498 ✓			
	2.549	+0.005/-0.000	2.549 ✓			
	2.599	+0.005/-0.000	2.599 ✓			
	2.671	+0.005/-0.000	2.671 ✓			
	2.701	+0.005/-0.000	2.701 ✓			
	126.51	+/-0.020	126.50 ✓			

<b>Measured by:</b>	<b>M8/S.K.B</b>	<b>Audited by:</b>	<b>Sr</b>	<b>Prototype Approval:</b>	<b>N/A</b>
<b>Date:</b>	<b>07/04/05</b>	<b>Date:</b>	<b>07/04/09</b>	<b>Date:</b>	<b>N/A</b>

Rev	Date	Change	Revised by	Approved
A	05.04.27	New Issue (P/O D412-664-101)	KJ/JLM	
B	06.03.15	Tolerance revised for 5.097 per Dwg Rev update	KJ/JLM	

DART AEROSPACE LTD		Work Order:	31352
Description: Crosstube High Fwd (205/212/412)		Part Number:	D212-664-101
Inspection Dwg: D212-664-141 Rev: B		Page 1 of 1	

Required Dimension	Min	Max
Height	26.86	26.98
1/2 Span	53.66	53.78
Angle	49	52
Total Span	107.32	107.56



Comments
height is on even by +0.1875, and is within tolerance. Pits good.

QC15 Inspection	205.03.
Date	

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	<i>[Signature]</i>



DESIGN PH	DRAWN BY PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D212-664-141	REV. B SHEET 1 OF 3
DATE 05.02.04		TITLE XTUBE ASS'Y (205/212/412 HI FWD) NTS	
A	00.12.12	NEW ISSUE	
B	05.02.04	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	

RELEASED  
05.06.09 *[Signature]*

UNDER REVIEW

~~03.03.03 PH~~

REVISE TO ADD  
MANUFGND AND LSHIGH

OK  
07.02.06  
PH

Qty	Part Number	Description
X	D212-664-141	CROSSTUBE ASSEMBLY (205/212/412 HIGH FWD)
1	D6005-128	CROSSTUBE
2	D2893-1	SUPPORT
2	D2856-600-851	ABRASION STRIP
4	MS21920-24	CLAMP

#### GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6005-128  
FINISHED LENGTH = 126.51±0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS
- 9) INSTALL D2856-600-851 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2893-1 SUPPORT, PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) IT IS OPTIONAL TO SEAL EDGES OF SUPPORTS USING SIKAFLEX-241/291 SEALANT.
- 12) TORQUE CLAMPS 80 TO 100 IN-LB.

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 31352

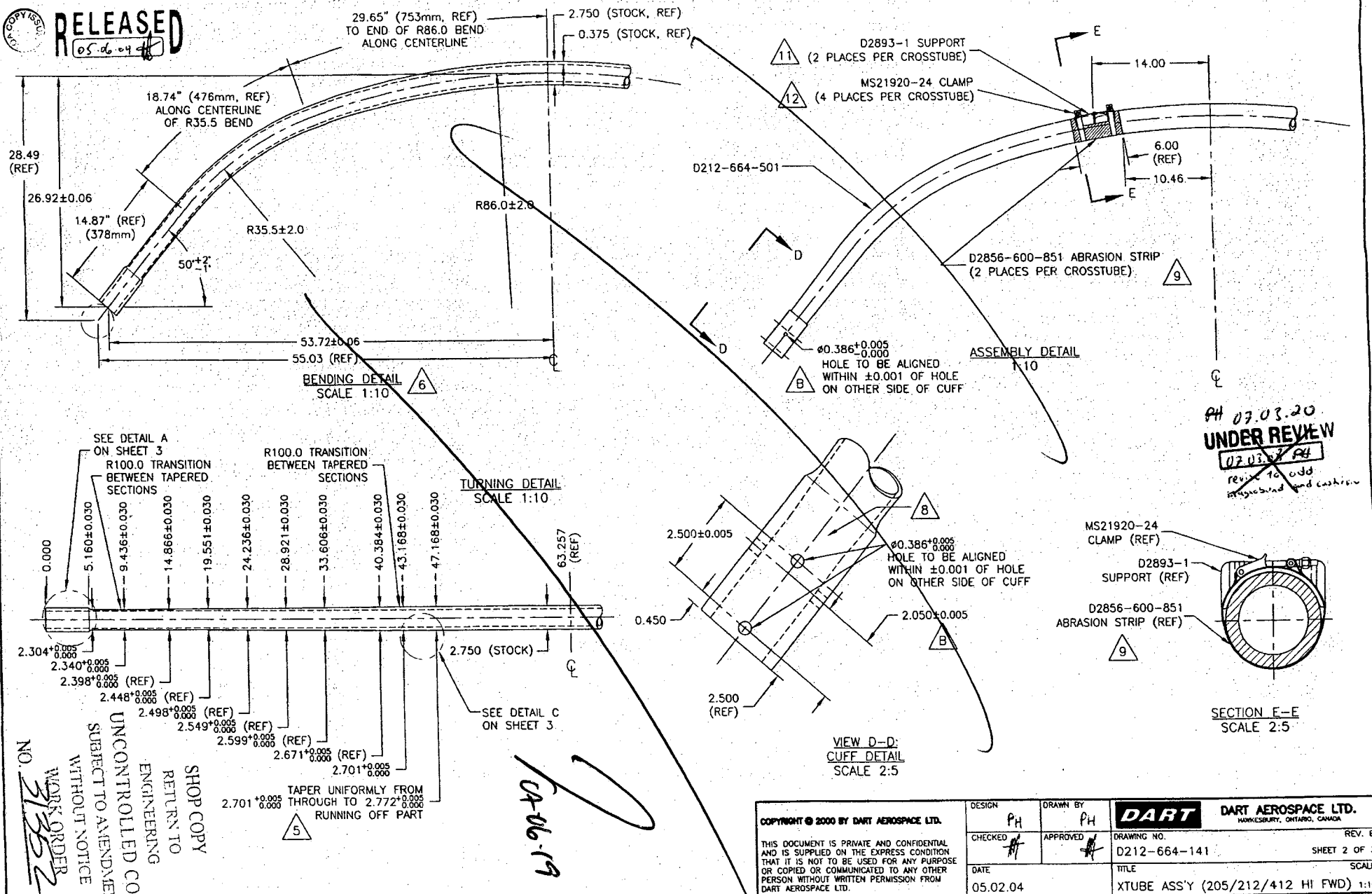
*[Signature]*  
07-06-19

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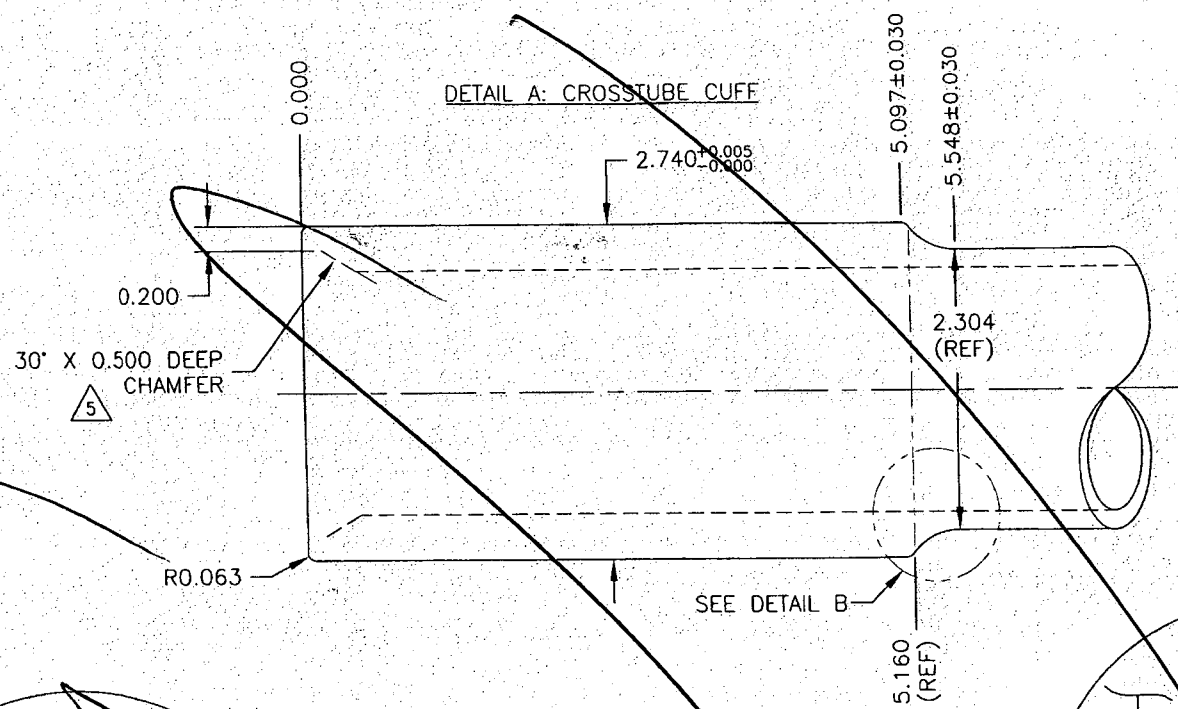
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DESIGN	DRAWN BY	DART	DART AEROSPACE LTD.
PH	PH		MARKHAM, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.	REV. B
#	#	D212-664-141	SHEET 2 OF 3
DATE	TITLE	SCALE	
05.02.04	XTUBE ASS'Y (205/212/412 HI FWD)	1:10	

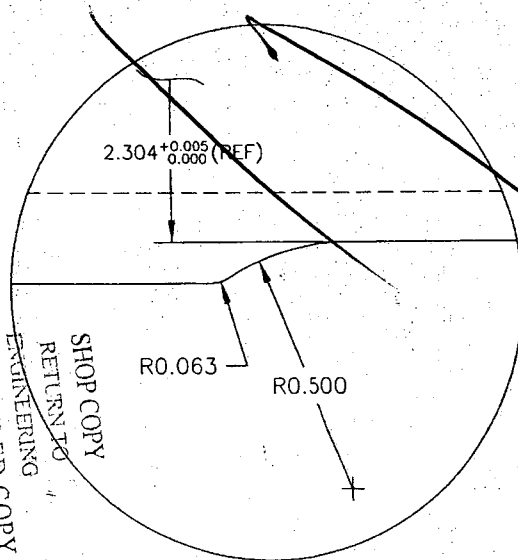




RELEASED  
05.02.04

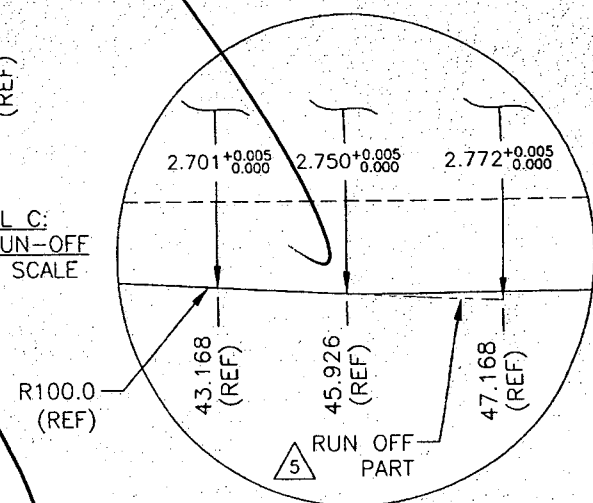


PH 07.08.20  
**UNDER REVIEW**  
07.08.20 PH  
Review to add  
magnesium and cushion



DETAIL B: CUFF  
TRANSITION  
SCALE 4:1

DETAIL C:  
TAPER RUN-OFF  
NOT TO SCALE



UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WOL/CEDED  
31352

07-06-19

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THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		CHECKED	#	APPROVED	A	DRAWING NO.	REV. B
		DATE	05.02.04			D212-664-141	SHEET 3 OF 3
						XTUBE ASS'Y (205/212/412 HI FWD)	SCALE 1:1





# HeathAir

INTERNATIONAL (1991) INC.

681 Ave. Lepine, Dorval, Québec H9P 1G3  
Tél.: (514) 636-1000 • Fax: (514) 636-0031

W.O. N° 36547

A.M.O. Number: 46/90

## NON-DESTRUCTIVE TESTING REPORT

### AIRCRAFT / COMPONENT INFORMATION

REGISTRATION:

MODEL/TYPE:

SERIAL NUMBER:

TOTAL HR/LDG:

OPERATED BY:

BASED AT:

### INSPECTION REQUIREMENTS

Carry out FPI of (6) cross tubes (external surface) as per ASTM E-1417-05 and the Dart QSI 038, Section 4.1.1 (on file at client) - parts delivered to HeathAir.

Qty (5) P/N D212-664-101 S/N's B31354, B31355, B31353, B31357 and B31352.

Qty (1) P/N D212-664-201 S/N B31361.

☐ RADIOGRAPHY

☐ ULTRASONIC

☒ PENETRANT

☐ MAGNETIC PARTICLE

☐ EDDY CURRENT

### INSPECTION REPORT

Fluorescent penetrant inspection was performed in accordance with the above requirements on (6) cross tubes.

Note: A Level 3 penetrant was substituted for the requested Level 2 (3 is more sensitive) Ardrex 970P25E Batch #04B503.

(6) cross tubes inspected. (6) PASSED / (0) FAILED.

THE MAINTENANCE DESCRIBED ABOVE HAS BEEN PERFORMED IN ACCORDANCE WITH  
THE APPLICABLE STANDARDS OF AIRWORTHINESS

INSPECTED BY:

DATE

June 1, 2007

INSPECTION  
STAMP(S)

CUSTOMER: Dart Aerospace

ADDRESS:

### CUSTOMER INFORMATION

P.O. NUMBER

PO 00003878

CONTACT NAME:

Linda Lacelle

LA 30UR

@

\$

MATERIALS

@

TRAVEL EXPENSES

@

GST

HOTEL EXPENSES

@

PST

INVOICE NO.

TOTAL \$

WHITE COPY - INSPECTION FILE • YELLOW COPY - CUSTOMER • PINK COPY - ACCOUNTANT

**DART**~~REFERENCE ONLY~~**RELEASED**

07.04.24

DESIGN <b>PH</b>	DRAWN BY <b>PH</b>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <b>CP</b>	APPROVED <b>[Signature]</b>	DRAWING NO. D212-664-141	REV. C SHEET 1 OF 3
DATE 07.03.08		TITLE XTUBE ASS'Y (205/212/412 HI FWD) NTS	
A	00.12.12	NEW ISSUE	
B	05.02.04	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	
C	07.03.08	REMOVE -851 ABRASION STRIP; ADD MAGNOBOND 6398, CUSHION, REVERSE CLAMPS	

Qty	Part Number	Description
X	D212-664-141	CROSSTUBE ASSEMBLY (205/212/412 HIGH FWD)
1	D6005-128	CROSSTUBE
2	D2893-1	SUPPORT
4	D3595-063-450	RUBBER CUSHION
4	MS21920-25	CLAMP (OR MS21920-26)
A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

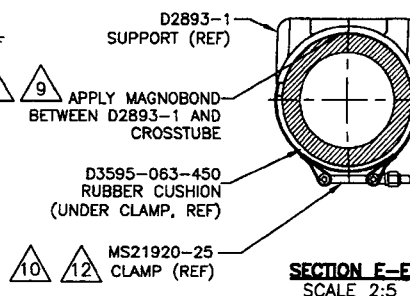
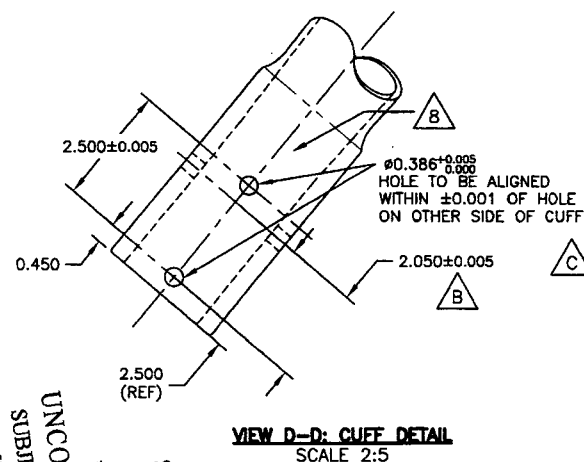
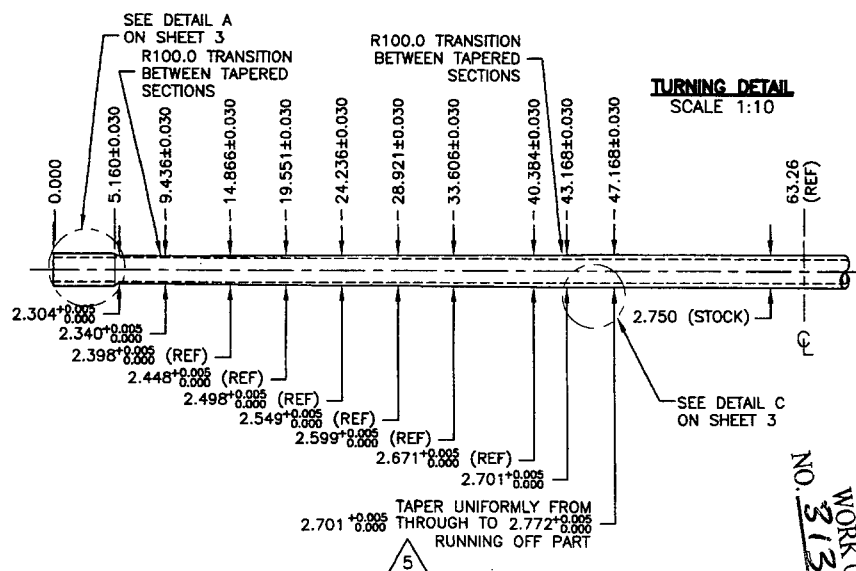
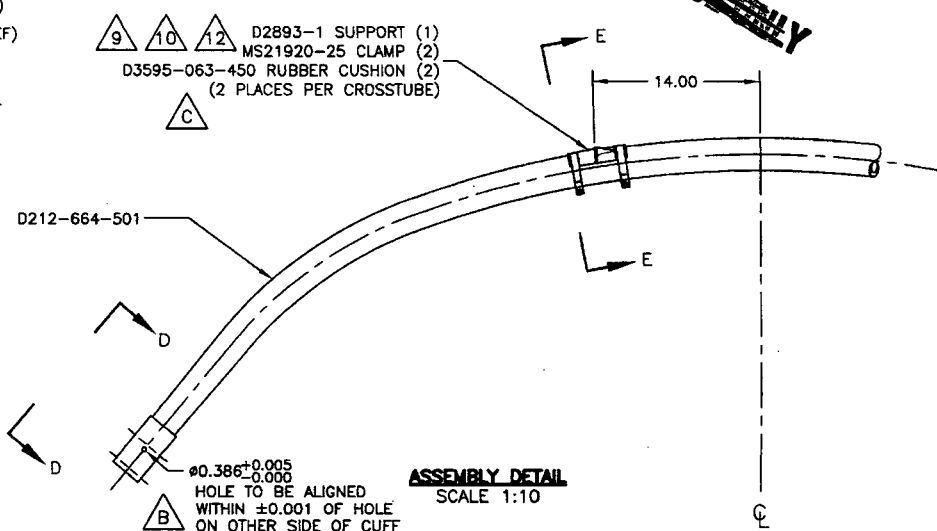
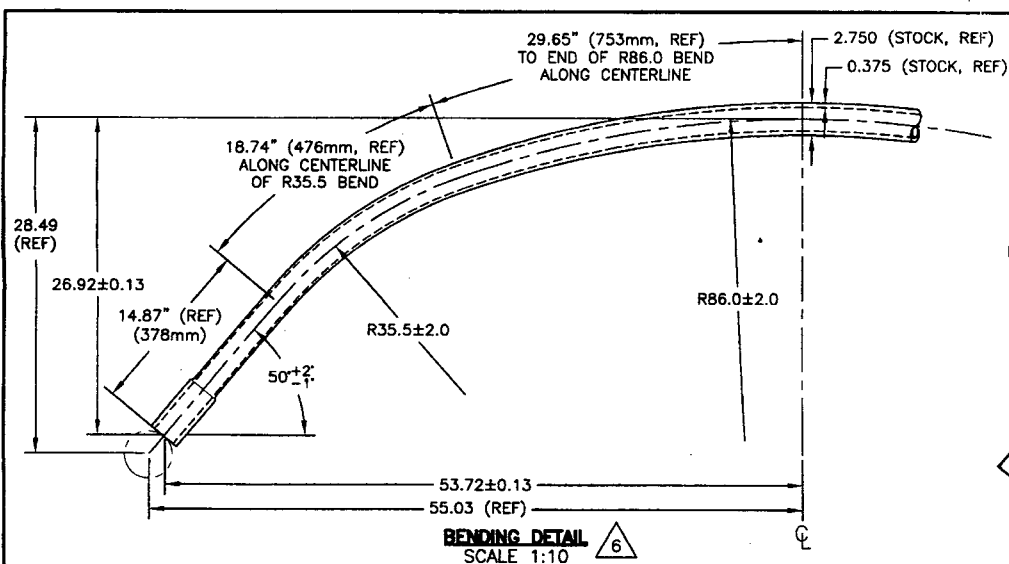
**GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6005-128  
FINISHED LENGTH = 126.51±0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2893-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 10) INSTALL MS21920-25 CLAMPS (OR -26) WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2893-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE SUPPORT
- 11) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 12) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

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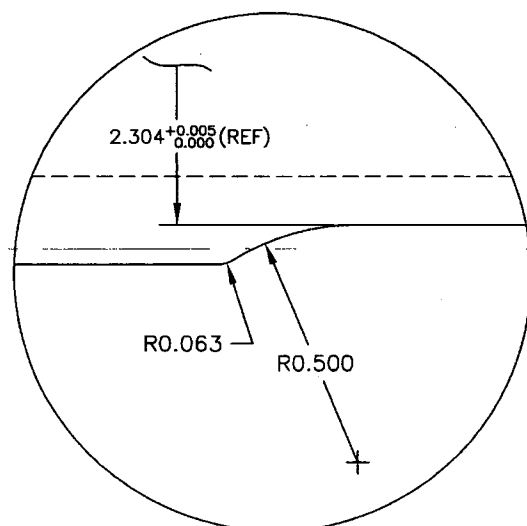
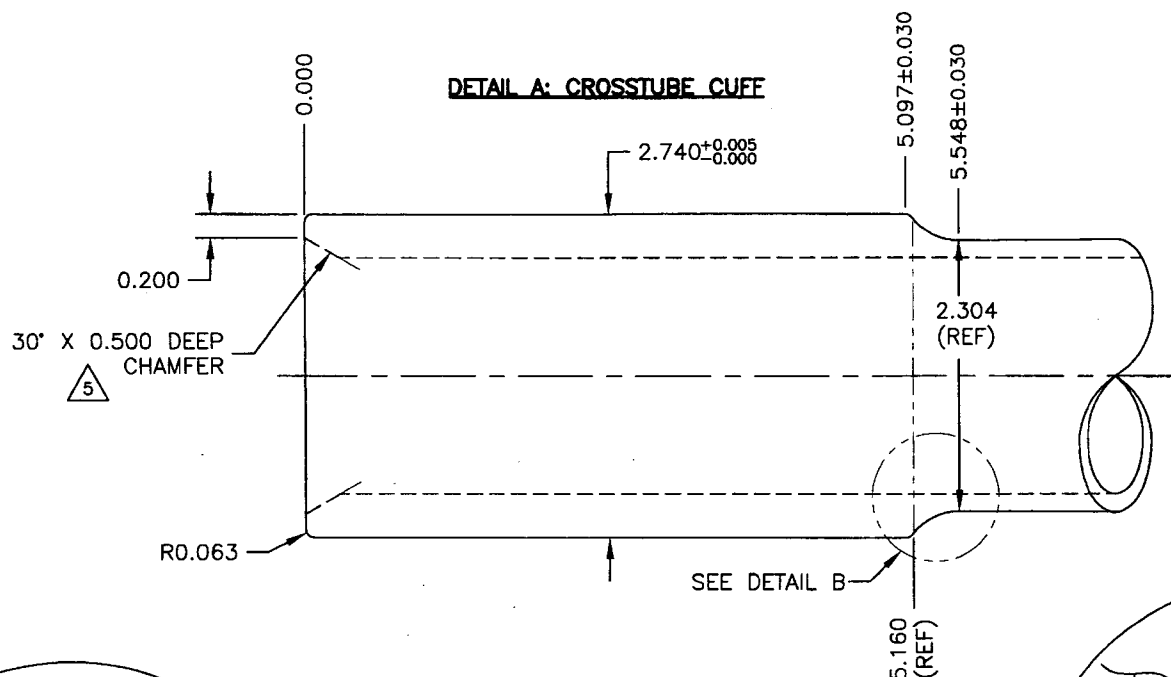
DESIGN	PH	DRAWN BY	PH	<b>DART</b>	DART AEROSPACE LTD. WILLOWBURT, ONTARIO, CANADA
CHECKED	97	APPROVED	4	DRAWING NO.	D212-664-141
DATE	07.03.08	TITLE	XTUBE ASS'Y (205/212/412 HI FWD)	SCALE	1:10

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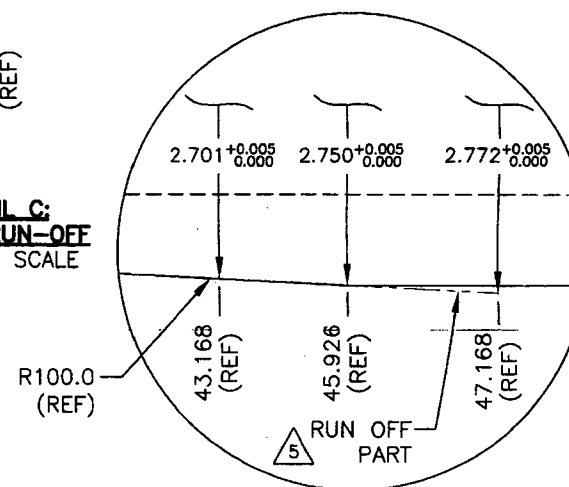
07.04.24

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67.04.24 LP  
PER ELEN 887

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**DETAIL C: TAPER RUN-OFF**  
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DESIGN PH	DRAWN BY PH	<b>DART</b> DART AEROSPACE LTD. WILKESBURY, ONTARIO, CANADA
CHECKED J	APPROVED J	DRAWING NO. D212-664-141
DATE 07.03.08	TITLE XTUBE ASS'Y (205/212/412 HI FWD)	REV. C SHEET 3 OF 3 SCALE 1:1